



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PRELIMINARY ISSUE
DAS
35
9-89

D5576-1

Job Sheet 172994

Accounting Job RD17-1046-01



Part No: D5576-1

Job Qty: 2 ea

Part Name: Deflector, Upper Cable Cutter



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 2/23/18

Job Tracking No:

Due Date: 3/30/18

Created By: Michelle Gagnon-Donovan

Type: R+D

Description:

Note: TBD Dwg D5576 Rev.A IPP Rev.A New issue 18/02/23 JFS Verified by:DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	2 Ea	3/29/18	3/29/18	0.00	0.00	Start Up Machining-1		mm
110	CNC Vertical Machining	2 pcs	3/29/18	3/29/18	0.00	0.44	HAAS1-1		mm
120	QC	2 pcs	3/29/18	3/29/18	0.00	0.00	QC2 Machining-1		mm / pc-2
130	QC	2 pcs	3/29/18	3/29/18	0.00	0.00	QC8 Machining-1		mm / 18/03/18
135	Outsource	2 pcs	3/29/18	3/29/18	0.00	0.20	HandFinish1	Outsource	mm / 18/03/18
140	Packaging	2 pcs	3/29/18	3/29/18	0.00	0.00	QC7-5	Packaging	mm / 18/03/18
145	HandFinish	2 pcs	3/30/18	3/30/18	0.00	0.10	Spray Paint		JAS
150	QC	2 pcs	3/30/18	3/30/18	0.00	0.00	QC14	QCC	38
180	Packaging	2 pcs	3/30/18	3/30/18	0.00	0.00	Packaging3-1		21
190	QC21-SA	2 Ea	3/30/18	3/30/18	0.00	0.00	QC21		21

Part Op 90 - Cut blank at 19.750" ***ONE BLANK MAKES TWO PARTS***

Descriptions: 110 - 1-Machine per folio FB771 DWG REV: _____ FOLIO REV: _____ 2- deburr and break all sharp edges

120 - QC2- Inspect parts off machine FAI/FAIB

130 - QC8- Inspect parts - second check

135 - Issue P/O to ATG: 80039326 Black Anodize & Prime as per Dwg. D5576 Certification of Conformity is required.

140 - Certification of Conformity is required.

145 - PRIME AS PER DWG AND QSI005, SEE NOTE #2- PRIME USING MIL-PRF-23377 PRIMER

BATCH: _____

180 - Identify as per dwg & Stock Location: _____

190 - QC21- Final Inspection - Work Order Release

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M7075T6S0.375X5.000	M7075T6S0.375 X 5.000	1.6460 ft (.823 ea)	90-Start up Operation	<u>S030438</u>

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M7075T6S0.375X5.000	2	31	0

Part Specifications

Specifications could not be found.

Approved
DAS
35
9-89
Plex 3/1/18 4:09 PM Dart Gagnon, Michelle
MAR 01 2018
EFFECTIVE
RELEASED
DATE

DART
AEROSPACE

Dart Aerospace Ltd.
1270 Alasdair Street
Hemel Hempstead, HX 8A 1K7
HANTS
UK
Tel: +44 (0)1494 413 632 - 6200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: 8049639



Part: D6576-1

Job No: 172994

Serial No/Batch: 8049639

Revision: A

Inspector:

Date: 09/09/19

INSPECTION SHEET

Rev	Date	Change	Revised by	Approved
A	14.07.31	New Issue	KJ	

D5576-1 DEFLECTOR, UPPER, CABLE CUTTER

Job # 172994

RELEASED

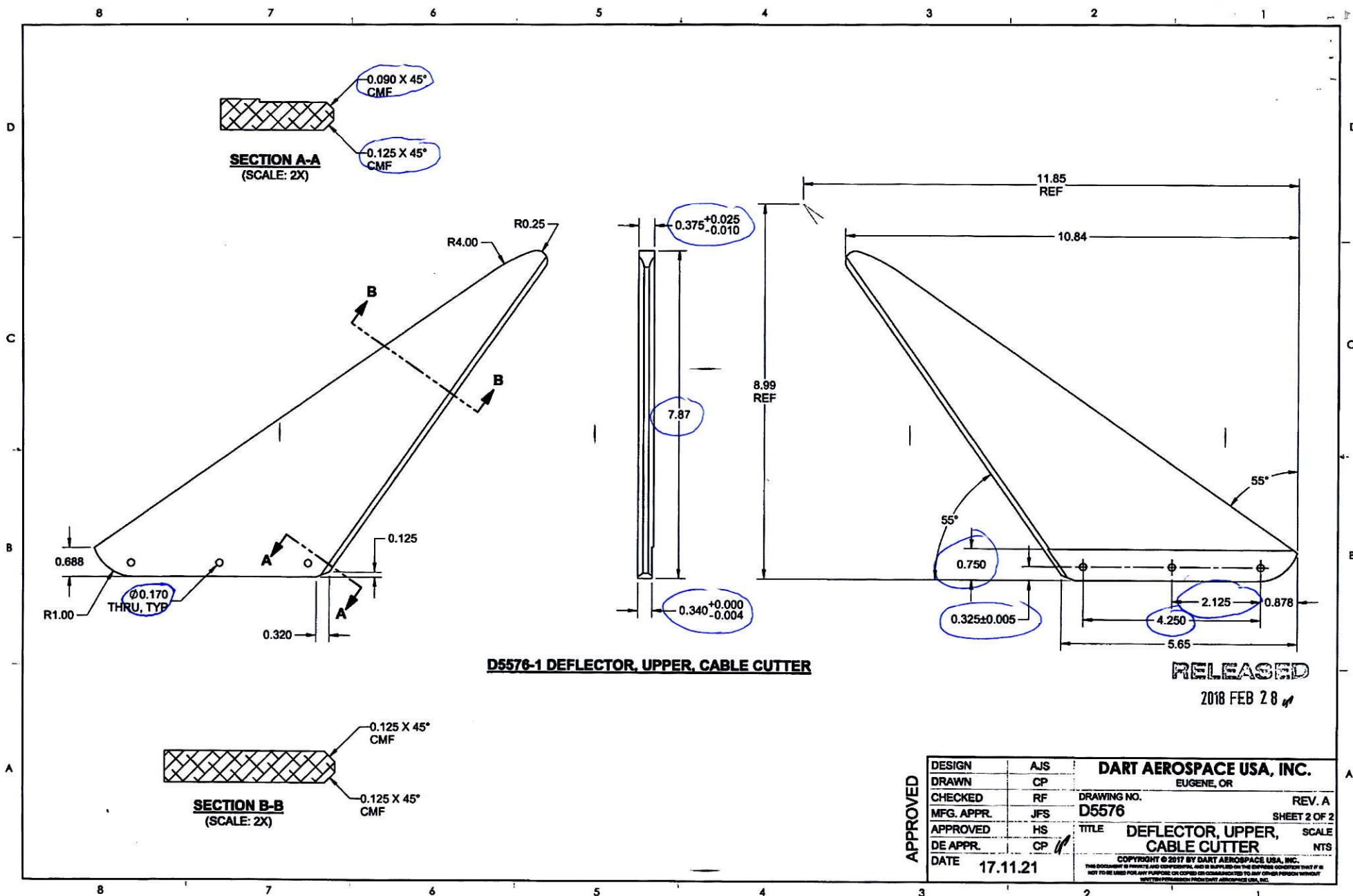
2018 FEB 28

ECN 18-501

NOTES:

- 1) MATERIAL: 7075-T6 (OR T651/T6510/T6511/T62) ALUMINUM BAR
PER AMS-QQ-A-225/9 (OR AMS 4122/4123/4186/4187) OR
PER AMS-QQ-A-200/11
REF DART SPEC M7075T6B
OR: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE
PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR
AMS 4045 OR ASTM B209
REF DART SPEC M7075T6S
- 2) FINISH: ANODIZE PER MIL-A-8625, TYPE II, CLASS 2, COLOR = BLACK
PRIME USING MIL-PRF-23377, 1-2 MIL MAX, PER DART QSI 005 4.2.1.3.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
- 7) WEIGHT: 1.01 lbs

A		NEW ISSUE		CP	17.11.21
REV.	DESCRIPTION			BY	DATE
DESIGN	AJS	DART AEROSPACE USA, INC.			
DRAWN	CP	EUGENE, OR			
CHECKED	RF	DRAWING NO.	REV. A		
MFG. APPR.	JFS	D5576	SHEET 1 OF 2		
APPROVED	HS	TITLE	DEFLECTOR, UPPER, CABLE CUTTER		
DE APPR.	CP	SCALE NTS			
DATE	17.11.21				
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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER
PO039326

Supplier: ATG001-VC
A.T.G. Industries Inc
731 INDUSTRIELLE ROAD
ROCKLAND
ON
K4K 1T2 Canada
Phone: 613-446-4544
Fax: 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

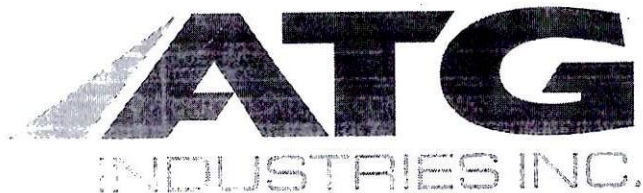
PO No:	PO039326
PO Date:	3/15/18
Due Date:	3/30/18
Purchase Order	
Revision:	
Revision Date:	
Ship-To Contact:	Tsimiklis, ChrisoulaPhone:
Via:	Ground
Pymt Terms:	Net 30
Freight Terms:	
Special Comments:	

Items

[illegible]

Order Notes

CT



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 914944

Date: 16-Apr-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Diane Baker
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		OUR TRUCK	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
2 ea	Part: D5576-1 Deflector, Upper Cable Cutter Anodize per MIL-A-8625F, Type II, Class 2, Black, .0004-.0010" (.4 - 1 mils). Job: 22753	Rev: A PO: PO039326 Line: 2	DAS 38 9-89
2 ea	Part: D5575-1 Deflector, Lower Cable Cutter Anodize per MIL-A-8625F, Type II, Class 2, Black, .0004-.0010" (.4 - 1 mils). Job: 22754	Rev: A PO: PO039326 Line: 3	
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>16/04/2018</u> Certified Signature: <u>[Signature]</u> Receiver Signature: _____ A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.			
Made in Canada.			



Dart Hawkesbury
1270 Aberdeen St. Hawkesbury, ON K8A 1K7 Canada
Tel (613) 632-5200

Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name	
PO038647	MEC002-VU	1	1	Net 30	M7075T6S0.375X5.000	M7075T6S0.375 X 5.000 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive fl.				60	60	60		S030438	Stock	1/2/2018	\$ 18.10 / ft	7		\$1,086.00	Melaux Castle	
Total:											60	60										\$1,086.00

Pex 1/9/2018 11:50 AM Dart Plouffe Sonia

Status: Receiving

part: **M7075T6S0.375X5**

Created: 1/9/18 11:50 AM DART.PLOUFFE.SO



Serial No: **S030438**

**Castle Metals®**

A. M. Castle & Co.

**PACKING SLIP/
CERTIFICATE OF CONFORMANCE**

Page 1 of 1

Pack Slip No:2802178

Ship From: A. M. Castle & Co. Los Angeles 14001 Orange Avenue Paramount, CA 90723		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 02-JAN-2018	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier BO-SHIP DIRECT	BOL No 2814998	Delivery No 121500852		

Shipment Details	Final Destination Branch -
-------------------------	-----------------------------------

Order No 4987252	Line No 1	Item No 750067.MO	Description 0.3750 PL 7075 T651 ALUMINUM 48.5000 144.5000 CUT 2SIDED TO 5 IN (+ .1250/- .0000 IN) X 144.5 IN (+ .1250/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12
Purchase Order No 38647		Part Number	Ordered Qty 5.00 PCS
			Invoice Qty 5.00 PCS

Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Matl/Source KAISER ALUMINUM	Heat Number 245158B1	Mech ID	PCS 5	Width (IN)	Length (IN)	Shipped Qty (LBS) 141.9315

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:



Date:

Name:

01/09/18



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038647

Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO038647

PO Date: 12/14/17

Due Date: 1/8/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

**E-MAILED
DEC 15 2017**

Items

Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M7075T6S0.375X5.000	M7075T6S0.375 X 5.000 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	60 ft	0 ft	60 ft	\$18.10/ft	\$1,086.00
Grand Total:									\$1,086.00

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 12/14/17 10:30 AM dart.lavoie.chantal

SHIP TO:

A M CASTLE & CO
14001 ORANGE AVE
P.O. BOX 1402
PARAMOUNT, CA 90723

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

SOLD TO:

AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

CERTIFIED TEST REPORT

Serial Number

4481839

CUSTOMER PO NUMBER: 438454-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 750067	SHIP RUN/LOAD: 104070/8	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1244225-1	SHIP DATE: 14-OCT-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T651
WEIGHT SHIPPED: 3198 LB	QUANTITY: 12 PCS EST.	TRUCK BL #: 2069553	GAUGE: 0.3750 IN (9.5250 MM)	PRODUCT DESCRIPTION: Sawed Plate
			DIAMETER/WIDTH: 48.500 IN (1231.9 MM)	LENGTH: 144.500 IN (3670.3 MM)

MHU 2157346: LOT 245158B1: 12 pieces;

Certified Specifications

AMS 4045/RevL
CMMP 025/RevV

AMS-QQ-A-250/2/RevA

ASTM B 209/Rev14

Test Code: 1512

Lot: 245158B1

Cast 534

Drop 25

Test Results

Ingot 5

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 3 (Min:Max)	85.5 : 85.8 (590 : 592)	75.8 : 76.0 (523 : 524)	13.3 : 13.5

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.10	0.17	1.5	0.04	2.5	0.19	5.8	0.03	0.01	0.02	TOT 0.03

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS

AMC CA-15409 R 3





Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4481839

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- has been thermally processed in compliance with AMS 2772, where applicable.
- is mercury free, within the limits of detection of ASTM E1215 (<1ppm).
- is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
- is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
- is free of weld repair.
- meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075+650.375x5.000

PO / BATCH NO.: 038647/5030438

DATE: JAN 09 2018

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 60"
 QUANTITY INSPECTED: 60"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375
 THICKNESS RECEIVED: 0.375
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>Am 3-QQ-A250</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat # 24515881</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>JAN 09 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

△ PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12
OR AMS 4045
OR ASTM B209

OR

△ PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

△ SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
OR AMS 4048 / 4049
OR ASTM B209

△ PART NUMBER: M7075T6S | TTT | X | W.WWW |
| THK | | WIDTH |

△ WHERE "TTT" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

△ PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED

2017 JUN 19
ECN 17-574

B	ADD: REF TO "PLATE" "T651" TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-149)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. M7075T6S TITLE 7075-T6 SHEET/PLATE SPEC SCALE NTS COPYRIGHT © 2016 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		

APPROVED

REV. B
SHEET 1 OF 1